SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS

Substantive Program Modification Form

UNIVERSITY:	**SDSU**
CURRENT PROGRAM TITLE:	**Human Biology (B.S.)**
CIP CODE:	**26.1201**
UNIVERSITY DEPARTMENT:	**Biology & Microbiology**
BANNER DEPARTMENT CODE:	**SBIM**
UNIVERSITY DIVISION:	**College of Natural Sciences**
BANNER DIVISION CODE:	**3T**

University Approval

To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.

Dennis D. Hedge — Vice President of Academic Affairs or President of the University

3/25/2020 — Date

1. This modification addresses a change in:

- ☒ Total credits required within the discipline
- ☒ Total credits of elective course work
- ☐ Program name
- ☐ CIP Code
- ☐ Total credits of supportive course work
- ☐ Total credits required for program
- ☐ Existing specialization
- ☒ Other: Academic Requirements

2. **Effective date of change:** 2020-2021 Academic Year
3. **Program Degree Level:** Associate ☐ Bachelor's ☒ Master's ☐ Doctoral ☐
4. **Category:** Certificate ☐ Specialization ☐ Minor ☐ Major ☒
5. **If a name change is proposed, the change will occur:**
   - ☐ On the effective date for all students
   - ☐ On the effective date for students new to the program (enrolled students will graduate from existing program)
   - Proposed new name:
6. **Primary Aspects of the Modification:**

Existing Curriculum				*Proposed Curriculum (Highlight Changes)*			
Pref	Num	Title	Cr Hrs	Pref	Num	Title	Cr Hrs
System General Education Requirement			**34**	**System General Education Requirement**			**32-34**
SGR 1 Written Communication:			6	SGR 1 Written Communication:			6
ENGL 101 English Composition I (3)				ENGL 101 English Composition I (3)			
ENGL 201 English Composition II (3)				ENGL 201 English Composition II (3)			
SGR 2 Oral Communication:				SGR 2 Oral Communication:			
SPCM 101 Fundamentals of Speech			3	SPCM 101 Fundamentals of Speech			3
SGR 3 Social Sciences/Diversity			6	SGR 3 Social Sciences/Diversity			6
PYSC 101 General Psychology				PSYC 101 General Psychology suggested			
SOC 100 Introduction to Sociology				SOC 100 Introduction to Sociology suggested			

Existing Curriculum				*Proposed Curriculum (Highlight Changes)*			
Pref	Num	Title	Cr Hrs	Pref	Num	Title	Cr Hrs
SGR 4 Arts and Humanities/Diversity PHIL 220 Introduction to Ethics			6	SGR 4 Arts and Humanities/Diversity PHIL 220 Introduction to Ethics suggested			6
SGR 5 Mathematics: or MATH 115 Precalculus (5) or MATH 121-121L Survey of Calculus & Lab (5)			5	SGR 5 Mathematics: ~~or MATH 115 Precalculus (5)~~ ~~or MATH 121-121L Survey of Calculus & Lab (5)~~			~~5~~
				MATH 115 Pre-Calculus or higher Consult advisor as some professional schools require calculus.			3-5
SGR 6 Natural Sciences: BIOL 151-151L General Biology I & Lab (4) BIOL 153-153L General Biology II & Lab (4)			8	SGR 6 Natural Sciences: BIOL 151-151L General Biology I & Lab (4) BIOL 153-153L General Biology II & Lab (4)			8
Department Requirements			--	**Department Requirements**			--
– 25 semester credits must be upper division (300 and above), with the exception that MATH 125 and 225, Calculus II and III, may be counted as five credits toward the total. – Students must complete a minimum of 33 credits from the natural sciences. Refer to departments offering the degree for specific course listings.			--	– 25 semester credits must be upper division (300 and above), with the exception that MATH 125 and 225, Calculus II and III, may be counted as five credits toward the total. – Students must complete a minimum of 33 credits from the natural sciences. Refer to departments offering the degree for specific course listings.			--
Major Requirements			**74-79**	**Major Requirements**			**70-74**
BIOL	119	First Year Seminar	2	BIOL	119	First Year Seminar	2
BIOL	202-202L	Genetics and Organismal Biology & Lab	4	BIOL	202-202L	Genetics and Organismal Biology & Lab	4
BIOL	204-204L	Genetics and Cellular Biology & Lab	4	BIOL	204-204L	Genetics and Cellular Biology & Lab	4
BIOL	221-221L	Human Anatomy & Lab	4	BIOL	221-221L	Human Anatomy & Lab	4
BIOL	290	Seminar	1	BIOL	290	Seminar	1
BIOL	325-325L	Physiology & Lab	4	BIOL	325-325L	Physiology & Lab	4
BIOL	383	Bioethics	4	BIOL	383	Bioethics	4
BIOL	490	Seminar	2	BIOL	490	Seminar	2
MICR	233-233L	Introductory Microbiology & Lab	4	MICR	233-233L	Introductory Microbiology & Lab	4
MICR	439	Medical and Veterinary Immunology	3	MICR	439	Medical and Veterinary Immunology	3
Select at least <u>four</u> courses from the list: BIOL 448 Molecular and Microbial Genetics (4) BIOL 467-467L Parasitology & Lab (3) BIOL 470 Cancer Biology & Lab (4) BIOL 476 Advanced Mammalian Physiology (4) BIOL 483-483L Developmental Biology & Lab (4) BIOL 494 Internship (3) BIOL 498 Undergraduate Research/Scholarship (3) CHEM 464 Biochemistry I (3) EXS 454-454L Biomechanics & Lab (3) MICR 424 Medical & Veterinary Virology (3) MICR 433 Medical Microbiology (3) MICR 440L Infectious Disease Lab (3)			12-16	Select at least <u>four</u> courses from the list: BIOL 448 Molecular and Microbial Genetics (4) ~~BIOL 467-467L Parasitology & Lab (3)~~ BIOL 470 Cancer Biology (4) BIOL 476 Advanced Mammalian Physiology (4) BIOL 483 Developmental Biology (3) BIOL 494 Internship (3) BIOL 498 Undergraduate Research/Scholarship (3) CHEM 464 Biochemistry I (3) EXS 454-454L Biomechanics & Lab (3) MICR 424 Medical & Veterinary Virology (3) MICR 433 Medical Microbiology (3) MICR 440L Infectious Disease Lab (3)			12-16
Supporting coursework			**30-31**	**Supporting coursework**			**26**
CHEM	112 -112L	General Chemistry I & Lab	4	CHEM	112 -112L	General Chemistry I & Lab	4
CHEM	114 -142L	General Chemistry II & Lab	4	CHEM	114 -142L	General Chemistry II & Lab	4
CHEM	326 -326L	Organic Chemistry I & Lab	4	CHEM	326 -326L	Organic Chemistry I & Lab	4
CHEM	328 -328L	Organic Chemistry II & Lab	4	CHEM	328 -328L	Organic Chemistry II & Lab	4
ENGL	379	Technical Communication (*Section: Biology & Microbiology*)	3	ENGL	379	Technical Communication (*Section: Biology & Microbiology*)	3

Existing Curriculum				*Proposed Curriculum (Highlight Changes)*			
Pref	Num	Title	Cr Hrs	Pref	Num	Title	Cr Hrs
PHYS 111-111L Introduction to Physics I & Lab (4) and PHYS 113-113L Introduction to Physics II & Lab (4)			8	~~PHYS 111-111L Introduction to Physics I & Lab (4)~~ ~~and~~ ~~PHYS 113-113L Introduction to Physics II & Lab (4)~~			~~8~~
				PHYS Electives Consult adviser as many professional schools require PHYS 111/L and 113/L			4
MATH 125 Calculus II (4) or STAT 281 Introduction to Statistics (3)			3-4	~~MATH 125 Calculus II (4)~~ ~~or~~ STAT 281 Introduction to Statistics (3)			3
Electives			**8-12**	**Electives**			**12-17**
Summary of Credits Human Biology (B.S.)							
System General Education Requirement			**34**	**System General Education Requirement**			**32-34**
Department Requirements			**--**	**Department Requirements**			**--**
Major Requirements			**74-79**	**Major Requirements**			**70-74**
Electives			**8-12**	**Electives**			**12-18**
Total number of hours required for major			74-79	Total number of hours required for major			70-74
Total number of hours required for degree			120	Total number of hours required for degree			120

Academic Requirements

Current:

A grade of C or higher is required for all major requirements including the BIOL, MICR, CHEM 112, CHEM 114, CHEM 326, CHEM 328, CHEM 464, PHYS 111, PHYS 113, MATH 125, and STAT 281.

Proposed:

A grade of C or higher is required for all major requirements including BIOL, MICR, CHEM 112, CHEM 114, CHEM 326, CHEM 328, CHEM 464, PHYS, MATH, and STAT 281.

7. Explanation of the Changes:

The Department of Biology & Microbiology has identified the following changes to the Human Biology major:

- PSYC 101 General Psychology, SOC 100 Introduction to Sociology, and PHIL 220 Introduction to Ethics are highly beneficial for students preparing for admission to healthcare programs. To become more transfer-friendly, both in terms of inter-institution transfer and also transfer from other majors, we seek to lower the hurdles for students for students that have already taken other courses from the SGR#3 and#4 lists prior to transferring / changing majors. Students will still be strongly advised to take these specific courses as SGR#3 and #4.
- Removed the requirement students must complete MATH 115 or MATH 121 for SGR #5. Changes to the SDSU MATH course sequence, as well as varying requirements of healthcare programs necessitated the change for SGR#5.
- Removed BIOL 467-467L Parasitology & Lab from the list of major electives. This course will no longer be offered due to curriculum management in response to budget cuts.
- Removed the BIOL 483L Developmental Biology Lab. BIOL 483 will be offered without a lab component.
- Replaced PHYS 111-111L Introduction to Physics I & Lab (4) and PHYS 113-113L Introduction to Physics II & Lab (4) with a PHYS elective. Students will complete a minimum of 4 credits in PHYS course(s). Not all healthcare programs require two semesters of physics for acceptance. Students should consult their advisor as many professional schools require PHYS 111-111L and PHYS 113-113L.

- Removed MATH 125 Calculus II. Modern healthcare is aided by large data sets so future healthcare professionals need a solid foundation in statistics, so STAT 281 Introduction to Statistics will now be required.
- The overall decrease in required course credits will free up credits for electives or towards a minor in another discipline area.